



A new species of *Callona* Waterhouse (Coleoptera: Cerambycidae) from Costa Rica and Panama

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As currently defined, the genus *Callona* Waterhouse, 1840, contains nine species ranging in distribution from southwestern United States to Venezuela. However, the generic distinction between *Callona* and its closely allied *Crioprosopus* Audinet-Serville, 1834, is in need of clarification due to descriptions of both genera being based solely on females (monobasic), absence of allotypes from the type species of these genera, and from the sexual dimorphism displayed by several subsequently described species. Also, scarcity of specimens in collections is a confounding factor in making a determination in the assignment of species to either *Callona* or *Crioprosopus*.

Several years ago a revision of the tribe Trachyderini Dupont (1836) was begun by two prominent North American figures in Cerambycidae systematic, Dr. John A. Chemsak and Mr. Frank T. Hovore; however, both passed away prior to completion of their revision. After their passing, several notes, description of undescribed new species and genera, and type specimens were found in the Essig Museum of Entomology in University of California, Berkeley. This publication provides the Chemsak & Hovore description of *Callona flavofasciata* from the orphaned type in the Essig Museum.

A specimen from the Instituto Nacional de Biodiversidad, Santo Domingo de Heredia, Costa Rica, was examined. The following acronyms are used throughout the paper:

INBio Instituto Nacional de Biodiversidad

WHTC William H. Tyson Private Collection, Coarsegold, CA, USA

MNRJ Museu Nacional, Universidade Federal do Rio de Janeiro, RJ, Brazil

Callona flavofasciata, Chemsak & Hovore, new species

Figs 1–2

Description. FEMALE: Length, 28–32 mm. Form robust, slightly tapering posteriorly; integument shining, all black except for two, yellow, transverse fasciae of elytra; pubescence sparse, long, erect, short, pale, dense at sides of meso-metasterna and abdomen. Head small; front short, deeply impressed transversely, each side of glabrous area with deep pit, median line deep, extending onto vertex between a swollen area between eyes; mandibles arcuate, acute at apices; palpi short, apical segments of labial palpi rounded at apex, maxillary palpi truncate at apices, impressed dorsally; genae small, subtruncate at apices; antennal tubercles broad, moderately elevated, apices rounded; eyes moderately large, finely faceted, upper lobes small, well separated; antennae 11-segmented, slender, shorter than body, scape conical, sparsely, finely punctate, carinate over basal ½, segments from fourth densely clothed with very short, appressed, pale pubescence, basal segments with a few, short, erect, black hairs beneath, segments 3–11 laterally carinate, 3 & 4 slightly enlarged at apices, third segment subequal to first, fourth shorter (7/10 of third), fifth to seventh subequal (8/10 of third), eighth subequal to fourth, ninth to tenth successively shorter than eighth, eleventh appendiculate, subequal to ninth. Pronotum broader than long, sides with large, narrowly obtuse tubercles slightly behind middle; disk with two, vaguely elevated, glabrous calluses behind apical margin and three, vague calluses behind middle, one median two lateral, basal margin broadly impressed; sides at apical ½ coarsely, confluent punctate, dorsal punctures coarse, confluent, basal 1/3 almost impunctate, pubescence sparse, pale, long, erect; prosternum coarsely, confluent, punctate above coxae, pubescence pale, erect, intercoxal process narrower than coxal cavities, arcuate, abruptly declivous behind, coxal cavities wide open behind; mesosternum with intercoxal process narrower than coxal cavities, very prominently produced with blunt apex,

abruptly, concavely declivous anteriorly, sides very finely clothed with short, silvery pubescence; metasternum very finely pale pubescent at sides. Scutellum glabrous, acutely pointed apically. Elytra about twice as long as broad, wrinkled at base, sides slightly tapering; punctures very fine, sparse, becoming obsolete toward apex; pubescence obsolete; disk with a broad, yellow, transverse fascia at basal $\frac{1}{2}$ and another, narrower yellow fascia behind middle; apices obliquely sinuate-truncate, margins slightly dentate. Legs slender; hind femora linear, not extending beyond body, finely, sparsely punctate; tibiae slender, apically with two short spines, internally with a row of short, suberect hairs; meta-tarsi slender, first segment about as long as two following together, third segment cleft to base. Abdomen finely pubescent at sides; fifth sternite broadly rounded at apex.



FIGURE 1. *Callona flavofasciata* Chemsak & Hovore, holotype female.

FIGURE 2. *Callona flavofasciata* holotype lateral profile.

MALE: Length, 20 mm. Form moderate-sized. Integument shining, black, parts of pronotum, femora, and abdomen partially dark reddish-brown. Labial and maxillary palpi short, apical segment of labial palpi truncate at apex, maxillary

palpi pointed at apices. Antennae, extending about 3 segments beyond elytra, segments 3 & 4 slightly enlarged at apices, remaining segments laterally carinate, third segment longer than first, fourth subequal to first, fifth subequal to third, eleventh appendiculate. Pronotum less robust than female, sides with small, narrowly obtuse tubercles slightly behind middle; disk with two, moderately elevated, glabrous calluses behind apical margin and three, more vague calluses behind middle, one median two lateral, sides at apical $\frac{1}{2}$ densely, confluent punctate, dorsal punctures very sparse, located around premedian calluses, basal $\frac{1}{2}$ almost impunctate; prosternum narrow, each side above coxae with a narrow, transverse, finely deeply punctate area (“prosternum with sexual punctures reduced in female”). Elytra about 2.4 times longer than broad; apices obliquely subtruncate, sutural angles rounded. Legs with hind femora extending slightly beyond body. Abdomen with segments 1-4 narrowly black at apices; fifth sternite broadly subtruncate at apex, shallowly emarginated medially.

Etymology. Named for the yellow fasciae of the elytra.

Types. Holotype, female, COSTA RICA, Guanacaste Prov., Estacion Pitilla, 9 km S Santa Cecilia, GNP Biodiversity Study, Jun 1989. Other paratypes, all from Costa Rica listed by Chemsak & Hovore, which were not examined by the authors of this paper include: 1 male, Puntarenas Prov., Cerro Nara, 11 Feb 1972, S. Medina Goud (original holotype, see “Remarks” below); 2 female paratypes from COSTA RICA: Alajuela Prov. Sect. San Ramon de Dos Rios, 620 m, 18 Mar- 13 Apr 1995, F.A. Quesada, 3-24 Apr 1995, M. Chincilla; and one female paratype from Guanacaste Prov., Estacion Pitilla, 9 km S Santa Cecilia, Mar 1989. Two additional female paratypes not listed by Chemsak & Hovore include: COSTA RICA, Alajuela Prov. 22 km N San Ramon, La Montana Camp, 3000', 15-26 Jun 2010, W.H. & J.S. Tyson; and PANAMA, Chiriqui, no additional data. Holotype deposited at INBIO. Paratypes in WHTC and MNRJ.

Remarks. The original holotype described by Chemsak & Hovore in their draft manuscript was a male from COSTA RICA: Puntarenas Prov., Cerro Nara, 11 Feb 1972, S. Medina Goud. However, this original holotype male, allotype and other paratypes quoted by Chemsak & Hovore were all missing from the Essig Museum. Therefore, the single remaining female paratype from Guanacaste Province, as described above, was used to represent the holotype of this species. The female characters as provided by Chemsak & Hovore were substituted for the male characters found in their original draft manuscript. All descriptions of characters from the draft manuscript and as provided above for this species were verified.

The female paratype from Alajuela Prov., 22 km N San Ramon, exhibited the following behavior according to W.H. Tyson: “Female sat on the upper limbs of a tree (25' high) with clusters of drooping yellow flowers. She made numerous flights of 20-30' out away from the tree, turned, and returned to either the same limb end or one nearby, and not to the flowers.”

Discussion

The original draft provided by Chemsak and Hovore had placed this species under genus *Callona* (i.e., *Callona flavofasciata*). Based on the above description, the authors of this paper are compelled to consider the above species to be more closely allied to *Crioprosopus* from Linsley's (1962:101) redescription of this genus. However, the mesosternal process of *C. flavofasciata* is very prominently produced rising well above the plane of the prosternal process, which is a characteristic of the genus *Callona* Waterhouse, 1840. According to Waterhouse's description of the type species, *Callona tricolor*, “the mesosternum differs in having an obtusely pointed tubercles situated between the middle pair of legs”. This character differs from the mesosternal process described for *Crioprosopus* based on the type species *C. serville* by Audinet-Serville (1834), which is without obvious projection, i.e., “Mésosternum sans saillie évidente”. The lateral profiles of *C. serville* is as shown on a photograph referenced below in Bezark (2011) and *C. flavofasciata* lateral view as comparison is provided in Figure 2.

Although generic clarification of *Callona* and *Crioprosopus* and related genera is outside the scope of this paper, the genus *Callona* may be segregated as those species with protuberant mesosternum, and as described by Bates (1885), “distinguished by the thorax of male having the sculpture confined to a limited area towards each anterior angle”. To this group belongs *C. tricolor*, and *C. flavofasciata*, and according to Bates (1885) the following species: *Callona lampros* (Bates, 1885), *Callona rutilans* (Bates, 1869) and *Crioprosopus cacticus*, Bates, 1885, and *Crioprosopus viridipennis* (Latreille, 1811).

Chemsakia may superficially resemble *Callona flavofasciata*, however, the elytra are quadricostate medially, and therefore, is considered more closely allied to *Pleuromenus*. Furthermore, the pronotum of *Chemsakia* is polished, and the disc is arcuately impressed on each side. *Callona flavofasciata* also superficially resembles *Crioprosopus amoenus*

Jordan (1895); however, the bicolored femora, abdomen and prothorax, and more glabrous pronotal disk of *C. amoenus* differentiate this species.

According to Chemsak & Hovore, “This species is very distinctive among the described *Callona* and *Crioprosopus* by the black integument with two, yellow, transverse, fasciae on the elytra. The pronotum of females is broader with stronger lateral tubercles but essentially maintains a similar shape as the males. The much smaller size of the male may account for some of the observed differences”.

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